Title (en)

MANUFACTURING METHOD FOR AN ELECTRODE FOR ELECTROCHEMISTRY

Title (de)

HERSTELLUNGSVERFAHREN FÜR EINE ELEKTRODE FÜR ELEKTROCHEMIE

Title (fr)

PROCÉDÉ DE FABRICATION D'UN ÉLECTRODE POUR ÉLECTROCHIMIE

Publication

EP 2776607 A1 20140917 (EN)

Application

EP 12805786 A 20121101

Priority

• JP 2011245987 A 20111109
• JP 2012078904 W 20121101

Abstract (en)

[origin: WO2013069711A1] The present invention provides an electrode for electrochemistry with a high quality, in which the surface area of the polycrystalline conductive diamond layer is increased and the crystal plane is controlled. In addition, when the catalyst layer of electrode substance is coated on the polycrystalline conductive diamond layer, adherence between the two layers is increased to provide an electrode for electrochemistry with a high durability. The polycrystalline conductive diamond layer is held under an atmosphere of carbon dioxide at a temperature 400 degrees Celsius or higher but 1000 degrees Celsius or lower to make the polycrystalline conductive diamond layer porous and make a specific crystal plane to remain and be formed.

IPC 8 full level

C25B 11/03 (2006.01); **C25B 11/04** (2006.01); **C25C 7/02** (2006.01); **C25D 17/10** (2006.01)

CPC (source: EP US)

C23C 16/271 (2013.01 - EP US); **C23C 16/56** (2013.01 - EP US); **C23C 18/08** (2013.01 - EP US); **C25B 11/031** (2021.01 - EP US);
C25B 11/075 (2021.01 - EP US); **C25B 11/093** (2021.01 - EP US); **C25C 7/02** (2013.01 - EP US); **C25D 17/10** (2013.01 - EP US);
F27D 7/06 (2013.01 - US); **G01N 27/30** (2013.01 - US); **H01M 4/8605** (2013.01 - US); **H01M 4/8803** (2013.01 - EP US);
C02F 2001/46147 (2013.01 - EP US); F27D 2007/063 (2013.01 - US); G01N 27/308 (2013.01 - EP US); Y02E 60/50 (2013.01 - EP)

Citation (search report)

See references of WO 2013069711A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2013069711 A1 20130516; EP 2776607 A1 20140917; EP 2776607 B1 20170823; JP 2014521828 A 20140828; JP 5604017 B2 20141008;
US 2014322632 A1 20141030

DOCDB simple family (application)

JP 2012078904 W 20121101; EP 12805786 A 20121101; JP 2014501322 A 20121101; US 201214357462 A 20121101